

REMARKS/ARGUMENTS

This responds to the office action mailed on December 9, 2004. Claims 1-40 are pending in the present application. Claims 1-40 are rejected. Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

Claim Objections

The Examiner stated that:

Claim 15 and 19 are objected to because of the following informalities: claim 15 recites “the ink-jet printer” in lines 2 and 3. Perhaps, Applicant meant to recite--a ink-jet printer--. Claim 19 recites “present medium” in line 8. Perhaps, Applicant meant to recite--print medium--. Appropriate correction is required.

Claim 15 recites in part “wherein the printing device is an ink-jet printer, and the interference pattern is caused when a first spot printer by the ink-jet printer...” Claim 15 has sufficient antecedent basis. Claim 19 has been amended to recite “print” in lieu of “present.”

This amendment is seen by Applicant as cosmetic, and as such, is not subject to the prosecution history estoppel imposed by Festo. For the record, Applicant points out that the Supreme Court in Festo noted that a cosmetic amendment would not narrow the patent’s scope and thus would not raise the estoppel bar.

The 35 U.S.C. §102 Rejections

Rejections Under 35 U.S.C. §102(b)

The Examiner rejected claims 1-6, 9, 10, 12, 13, 15, 9, 20, 22-24, 26-31, 33, 34 and 38 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,310,637 to Shimada et al. (Shimada). The Examiner states:

With respect to claims 1, 5, 28, 30, Shimada teaches printing a test pattern on a print medium in Figures 16-19, generating a digital image of the printed test pattern by an imaging device (CCD camera) 19 Figure 41, analyzing an interference (Moiré) pattern to measure for distortion of the print medium in Figures 26, 29, 31-39, 42-43 and column 10, lines 19-37 and calibrating the printing device based on the measure distortion (varying thickness of print medium) in Figures 7, 42-43 and column 1, lines 35-38. Further, Shimada teaches the computer code in at least ROM in column 23, lines 17-29 and his claim 19.

Shimada is directed toward a technique that appropriately adjusts the print timings in a forward course and a backward course of a main scan. The problem Shimada is ostensibly addressing is the deviation of dots due to the thickness of a sheet of paper. In FIG. 44, a dot dt11 is formed on a sheet of paper PA1 in the course of the forward motion of the main scan, and a dot dt12 is formed in the course of the backward motion of the main scan to be adjacent to the dot dt11. Col. 1, lines 35-40. The apparent problem as point out in Shimada is that the print timing may not be adjusted adequately with the solid test pattern where a predetermined area is filled with dots. The white streaks are extremely narrow, so that the ink blot on the paper makes it difficult to identify such white streaks. Col. 2, lines 38-42.

In contrast to Shimada, claim 1 recites:

A method for a printing device, the method comprising:

printing a test pattern on a print medium;
generating a digital image of the printed test pattern by an imaging device;
analyzing an interference pattern to measure for distortion of the print medium;

and

calibrating the printing device based upon the measured distortion.

The Applicant was unable to find any portion of Shimada teaching or suggesting “analyzing an interference pattern to measure for distortion of the print medium...” While Shimada discloses adjusting the print timing, the apparent application of the adjustment is towards correcting variations in paper thickness. Therefore, because Shimada fails to teach or suggest analyzing an

interference pattern to measure for distortion of the print medium, Shimada fails to teach or suggest claim 1.

Claim 19 differs from claim 1, however, the same argument applied to claim 1 applies to claim 19. Claim 28 has been amended to include “to measure distortion of the print medium.” The same argument applied to claim 1 therefore applies to claim 28.

Rejections Under 35 U.S.C. §102(a)

The Examiner rejected claims 1-16, 18-20 and 22-39 under 35 U.S.C. 102(a) as being clearly anticipated by U.S. Patent No. 6,644,773 to Bildstein et al. (Bildstein). The Examiner states:

With respect to claim 1, Bildstein teaches the generating, analyzing and calibrating steps in his claim 1. With respect to claim 2, Bildstein teaches the calibration is performed while continuing to process a print job in his claim 2. With respect to claim 3, Bildstein teaches the later time in his claim 3. With respect to claim 4, Bildstein teaches the different location in his claim 4. With respect to claim 5, Bildstein teaches Moiré pattern in his claim 5. With respect to claim 6, Bildstein teaches this limitation in his claim 6. With respect to claims 7-10, Bildstein teaches these limitations in his claim 7-10. With respect to claim 12-13, Bildstein teaches these limitations in his claim 11. With respect to claim 14, Bildstein teaches these limitations in his claim 1.

Bildstein discloses a method for registration calibration of an operating printing device.

A test pattern is printed on a print medium and an imaging device generates a digital image of the printed test pattern. An interference pattern corresponding to the digital image is analyzed and based on the interference pattern the printing device is calibrated. Col. 1, lines 48-54. As with Shimada, nowhere does Bildstein teach or suggest analyzing an interference pattern to measure for distortion of the print medium, as recited in claim 1. The Examiner cites claim 1 of Bildstein, which reads in part “ analyzing an interference pattern extracted from the digital image, wherein analyzing the interference pattern is performed between printing stations before the printing

stations have printed with all colors of the printing medium...” Claim 1 of Bildstein, as well as Bildstein as a whole, fails to teach or suggest measuring for distortion of the print medium and therefore fails to anticipate claim 1. If the Examiner maintains the rejection, the Applicant respectfully requests that the Examiner more specifically point out the pertinent section of Bildstein.

Claim 19 differs from claim 1, however, the same argument applied to claim 1 applies to claim 19. Claim 28 has been amended to include “to measure distortion of the print medium.” The same argument applied to claim 1 therefore applies to claim 28.

Rejections Under 35 U.S.C. §102(e)

The Examiner rejected claims 1-16, 18-20 and 22-39 under 35 U.S.C. 102(e) as being anticipated by Bildstein. The Examiner states:

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed, but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131. With respect to claim 1, Bildstein teaches the generating, analyzing and calibrating steps in his claim 1.

The rationale applied to Bildstein under the 102(a) rejection applies in full force to the 102(e) rejection. Based on the above arguments, independent claims 1, 19 and 28 are allowable over the cited reference. Claims 2-18, 20-27, and 29-40 are allowable since they depend from an allowable base claim. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 1-40 as now presented.

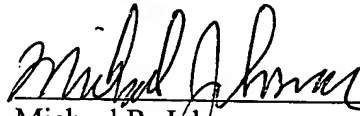
Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

SAWYER LAW GROUP LLP

June 8, 2005

Date



Michael R. Johnson
Attorney for Applicant(s)
Reg. No. 55,306
(650) 493-4540